

**REMARKS**

Claims 1-20 are pending in this application.

Claims 1, 11-12 and 19- 20 have been amended in order to more particularly point out, and distinctly claim the subject matter to which the applicant regards as his invention. It is believed that this Amendment is fully responsive to the Office Action dated **October 21, 2002**.

**PERSONAL INTERVIEW:**

A personal interview was conducted with Primary Examiner Jerome Grant, II on January 7, 2003. The special attention in which the Examiner paid to the present application is appreciated. All agreed upon issues as recorded in the Interview Summary is being reflected in this Amendment. Allowance of this application is respectfully requested.

**Rejection under 35 USC §102**

Claims 1, 3, 5, 7-12 and 14-18 are rejected under 35 USC §102(e) as being anticipated by Mizutani.

The outstanding Office Action has failed to recognize that the printer controllers of the present invention do not include a storage means for storing printed data. This aspect of the present invention is described, for example, from page 2, line 33 to page 3, line 19 of the specification. In fact, the object of the present invention is to provide a printer controller without providing a storage

means for storing printing data. This aspect of the present invention is reflected in independent claim 1 in that the controller receives printing data for each page from a host that transfers the printing data to a printer.

To the contrary, all prior art printer controllers include storage means. Specifically, the applied prior art Mizutani includes an image data storing device (3d). Without this data storing device, Mizutani could not function.

To clearly define the claimed invention over Mizutani, a further feature that the controller is without a data storage device is added to independent claims 1 and 11-12.

Furthermore, in Mizutani, regarding an error processing unit that passes error data and the number of print pages completed to a host when an error has occurred, the prior art discloses two equivalent error processing units, first being error detecting device 3f and second being error detecting device 3i.

The error detecting device 3f is being disclosed in column 7 lines 28-31 as “a device for detecting an error in the processes from receiving the print data to printing the image data, and outputting the detected error to the error information sending device 3g.” The error detecting device 3f is further elaborated in column 8 beginning from line 42 as determining whether any error occurs at the expanding process.

The error detecting device 3i is being disclosed in column 9 lines 7-11 as detecting such errors as paper jam, toner low, etc.

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From reviewing the true teaching of this prior art reference, none of the error detecting device actually passes error data and the number of print pages completed to a host when an error has occurred.

It is well settled that:

"A claim is anticipated only if each and every element *as set forth in the claim* is found, either expressly or inherently described, in a single prior art reference." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1567, 7 USPQ2d 1057 (Fed. Cir. 1988)."

Should the Office continue to assert that the claimed invention, as amended, is anticipated by the asserted prior art, a citation of where each and every claimed feature, either as column number and line number, or figure number and reference numeral, or a combination thereof, as disclosed in the asserted prior art is respectfully requested.

Should the Office determine that any claimed feature is not disclosed in the asserted prior art, it is respectfully submitted that the claimed invention is thereby not anticipated by the asserted prior art. Allowance of the claimed invention is then respectfully requested.

It is respectfully submitted that the claimed invention, as amended, patentably distinguishes over the asserted prior art. Claims dependent thereon, by virtue of inherency, also patentably distinguish over the asserted prior art. Reconsideration and withdrawal of this rejection are respectfully requested.

**Claim Objections**

Claims 2, 4, 6 and 13 are objected to as being dependent upon a rejected base claim. They are however indicated to be allowable once merged with any based and intervening claims.

Per agreement during the personal interview, independent claims 1 and 11-12 are amended to be placed in condition for allowance. Therefore, these object claims are not incorporated into the independent claims.

**ALLOWED CLAIMS:**

Per agreement during the personal interview, claims 19 and 20 are further amended to more clearly define the claimed invention.

The allowance of these claims is noted with appreciation.

**Conclusion**

In view of the aforementioned amendments and accompanying remarks, all pending claims are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

Attached hereto is a marked-up version of the changes made to claim 1 by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

In the event that this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Enclosures: Version with markings to show changes made

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE 09/212,393**

**IN THE CLAIMS:**

Please amend the claims as follows:

1. (Twice Amended) A controller without a data storage device that receives printing data for each page from a host, having a data transferring unit that transfers the printing data to a printer and controls the printer to print the printing data while monitoring states thereof is characterized in that it comprises:

an analyzing unit that analyzes the printing data and manages the number of pages transferred to the printer; and

an error processing unit that passes error data and the number of pages of which printing have been completed to the host when an error [in which data is not assured] occurred in the printer.

11. (Amended) A printing system comprising a host, a controller without a data storage device that receives printing data for each page transmitted from the host and a printer that receives the printing data from the controller and carries out printing while monitoring states of the printer by the controller, is characterized in that:

said controller comprises,

an analyzing unit that analyzes the printing data and manages the number of pages transferred to the printer, and

an error processing unit that passes error data and the number of pages of which printing have been completed to the host when an error [in which data is not assured] occurred in the printer, wherein

when an error occurred in the printer, said host transmits printing data of which printing has not been completed to the controller based on data informed by the controller after the printer is recovered by correcting the error, said controller transfers said printing data to the printer and controls the printer to carry out re-printing for each page.

12. (Amended) A recording medium readable by computers on which programs are recorded which enable a computer to [proceed] process the steps of receiving without storing printing data for each page from a host, transferring the printing data to a printer and controlling the printer to print the printing data while monitoring states thereof, is characterized in that:

said programs enable said computer to function as an analyzing unit that analyzes the printing data and manages the number of pages transferred to the printer; and

an error processing unit that informs error data and the number of pages of which printing have been completed to the host when an error [in which data is not assured] occurs in the printer.

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19. (Amended) A controller that receives printing data for each page from a host, transfers the printing data to a printer and controls the printer to print the printing data while monitoring states thereof is characterized in that it comprises:

an analyzing unit that analyzes the printing data and manages the number of pages transferred to the printer;

an error processing unit that passes error data and the number of pages of which printing have been completed to the host when an error [in which data is not assured] occurred in the printer; and

wherein said analyzing unit is provided with a plurality of analyzing units corresponding to different types of printers, and one of the analyzing units is selected corresponding to the type of printer connected to the controller.

20. (Amended) A recording medium readable by computers on which programs are recorded which enable a computer to proceed the steps of receiving printing data for each page from a host, transferring the printing data to a printer and controlling the printer to print the printing data while monitoring states thereof, is characterized in that:

said programs enable said computer to function as an analyzing unit that analyzes the printing data and manages the number of pages transferred to the printer; and



an error processing unit that informs error data and the number of pages of which printing have been completed to the host when an error [in which data is not assured] occurs in the printer; and

wherein said analyzing unit is provided with a plurality of analyzing units corresponding to different types of printers, and one of the analyzing units is selected corresponding to the type of a printer connected to the controller.